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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,935	11/14/2003	William B. Coney	BBNT-P01-084	4796

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EXAMINER

SAN MARTIN, EDGARDO

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/713,935	CONEY ET AL.	
	Examiner	Art Unit	
	Edgardo San Martin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,22-40,42-51 and 53-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20,22-40,42-51,54 and 57-59 is/are rejected.
- 7) ☒ Claim(s) 53,55 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/05/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed on June 5, 2006 presented 3 references that were incorrectly numbered, the Examiner will cite the references in the Form PTO-892 included herewith.

Claim Objections

2. Claims 1, 22, 23, 42 and 43 are objected to because of the following informalities:

- Claim 1 is missing the ending period;
- Claims 22 and 23 should depend upon claim 1;
- Claims 42 and 43 should depend upon claim 24.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 20, 22 – 40, 42, 43, 48 – 51, 54 and 57 – 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 3,572,462) in view of Broding (US 4,020,919).

With respect to claims 1, 24, 48 and 57, Gray teaches a system and method for sensing motion of a surface (Fig.3) comprising a seismic sensor (Fig.3, Item 36) coupled to the surface (Fig.3, Item B); and a shield (Fig.3, Item 32) configured to enclose the seismic sensor, wherein the shield is configured to provide an acoustic transmission loss, a wind noise loss, or both (Fig.3; Col.1, Line 38 – Col.2, Line 2, Col.2, Lines 29 – 51, Col.3, Lines 1 – 19 and Col.4, lines 38 – 44), but fails to disclose wherein the shield further comprises a compliant seal that couples the shield to the surface.

Nevertheless, Broding teaches a system and method for sensing motion of a surface comprising a shield (Fig.3, Item 10) configured to enclose a seismic device, wherein the shield further comprises a compliant seal (Figs.1 and 3, Item 12) that couples the shield to the surface.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Broding seal with the Gray design because the seal would substantially reduces vibrations that could affect the performance of the seismic device.

With respect to claims 2, 24, 49 and 54, Gray teaches wherein the shield comprises a substantially rigid shell; and wherein the substantially rigid shell and the structural damping material layer are distinct and wherein the shield further comprises at least one of a distinct acoustically absorptive material layer and a distinct mass layer (Fig.3, Item 32; Col.3, Lines 1 – 19).

With respect to claims 14, 18, 24, 38, 50 and 51, Gray teaches wherein the shield further comprises a structural damping material layer (Fig.3, Item 32) coupled to

the shell; an acoustically absorptive material layer (Fig.3, Item 34) coupled to the structural damping material layer (Col.3, Lines 1 – 19 and Col.4, Lines 38 – 44).

With respect to claims 5, 6, 8, 10, 15 – 17, 19, 20, 25, 30, 31, 33, 35 – 37, 39 and 40, Gray teaches the limitations described in the claims (Fig.3; Col.1, Line 38 – Col.2, Line 2, Col.2, Lines 29 – 51, Col.3, Lines 1 – 19 and Col.4, lines 38 – 44).

With respect to claims 22, 23, 42 and 43, Broding teaches wherein the compliant seal comprises an air filled rubber tube (Figs.1 and 3, Item 12; Col.2, Lines 33 – 44).

With respect to claims 3, 4, 7, 9, 11 – 13, 23, 26 – 29, 32, 34 and 43, the Examiner considers that it would have been an obvious matter of design choice to provide a desired or predetermined value to variables designating element weights, dimensions, preferred materials, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233; in addition, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980); furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

With respect to claims 57 – 59, the obvious combination of Gray and Broding teaches a system for sensing motion of a surface comprising a seismic sensor coupled to the surface; and an aerodynamically-shaped shield configured to enclose the seismic sensor, wherein the shield is configured to provide an acoustic transmission loss, a wind

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noise loss, or both; wherein the aerodynamically shaped shield has a height and a radius, and the height is less than the radius; and wherein the aerodynamically shaped shield has a low profile with respect to the surface (Gray: Figs.2 and 3; Broding: Figs. 3 – 5).

4. Claims 44 – 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 3,572,462) in view of Broding (US 4,020,919), and further in view of Boyle (US 3,953,829).

Gray and Broding teach the limitations discussed in a previous rejection, but fail to disclose a suspension, wherein the shield is coupled to the seismic sensor using the suspension.

On the other hand, Boyle teaches a seismic sensor (Fig.1, Items 22 and 24) having a housing (Fig.1, Item 10) and using a suspension (Fig.1, Items 30 and 32) to couple the sensor to the housing (Col.3, Line 63 – Col.4, Line 44).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Boyle configuration with the Gray and Broding design because the suspension would effectively damp and suppress orthogonal or cross axis responses over a wide frequency range.

Allowable Subject Matter

5. Claims 53, 55 and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers that the obvious combination of the patents to Gray, Broding and Boyle teach the limitations described in the claims as discussed above.

Conclusion

7. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

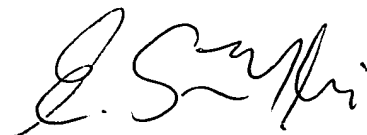
Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext.33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín
Primary Examiner
Art Unit 2837
Class 181
September 18, 2006